

Listing of the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

1. (CANCELLED)
2. (CANCELLED)
3. (CANCELLED)
4. (CANCELLED)
5. (CANCELLED)
6. (CANCELLED)
7. (CANCELLED)
8. (CANCELLED)
9. (CANCELLED)
10. (CANCELLED)
11. (CANCELLED)
12. (PREVIOUSLY PRESENTED)

A system for processing an audio signal, comprising:

a first simulation model;

a second simulation model; and

a simulation model generator coupled with the first and second simulation models, the simulation model generator capable of warping between the first and second simulation models, thereby producing a generated simulation model, wherein the generated simulation model receives and processes the audio signal.

13. (PREVIOUSLY PRESENTED) The system of Claim 12 , where the first simulation model, the second simulation model and the generated simulation model all comprise at least one of an amplifier simulation model, a cabinet simulation model, a reverb simulation model, a time-variant effect simulation model, and a delays simulation model.

14. (PREVIOUSLY PRESENTED) The system of Claim 13, where the time-variant effect simulation model includes a modulation effects simulation model.

15. (PREVIOUSLY PRESENTED) The system of Claim 14, where the modulation effects simulation model includes an effect selected from a group comprising a chorus modulation effect, a flanger modulation effect, a phaser modulation effect, a pitch-shifter modulation effect, a rotary simulator modulation effect, and an intelligent harmony modulation effect.

16. (PREVIOUSLY PRESENTED) The system of Claim 14 where the system is implemented by computer logic according to computer-executed instructions stored in a computer-readable medium.

17. (PREVIOUSLY PRESENTED) The system of Claim 14 where the system is implemented by computer logic according to computer-executed instructions embodied in a computer-readable electromagnetic signal.

18. (PREVIOUSLY PRESENTED) A system for processing an audio signal, comprising:

a first cabinet speaker simulator;
a second cabinet speaker simulator; and

a warp control coupled with the first cabinet speaker simulator and the second cabinet speaker subsystem and where the warp control receives and customizes the audio signal as a function of the first and second cabinet speaker simulators.

19. (PREVIOUSLY PRESENTED) The system of Claim 18 where the system is implemented by computer logic according to computer-executed instructions stored in a computer-readable medium.

20. (PREVIOUSLY PRESENTED) The system of Claim 18 where the system is implemented by computer logic according to computer-executed instructions embodied in a computer-readable electromagnetic signal.

21. (PREVIOUSLY PRESENTED) A system for processing an audio signal, comprising:

a cabinet-speaker simulator for processing the audio signal and including a cabinet simulation model that is a function of a sample rate; and

a user control in communication with the cabinet-speaker simulator and simulating an effect of a change in the sample rate.

22. (PREVIOUSLY PRESENTED) The system of Claim 21, where the user control includes a virtual sampling rate.

23. (PREVIOUSLY PRESENTED) The system of Claim 22, where the virtual sampling rate is a function of the sampling rate.

24. (PREVIOUSLY PRESENTED) The system of Claim 21, where the user control includes a user-controllable variable.

25. (PREVIOUSLY PRESENTED) The system of Claim 24, where the user-controllable variable is a function of the sampling rate.

26. (PREVIOUSLY PRESENTED) The system of Claim 25, where the cabinet simulation model includes an finite impulse response filter that is a function of the user-controllable variable.

27. (PREVIOUSLY PRESENTED) The system of Claim 26, where the finite impulse response filter ($H(z)$) is further a function of a number of filter taps (L), a plurality of coefficients (a_0, a_1, \dots, a_L), an inverse of the user-controllable variable (M), and an equation $H(z) = a_0 + a_1 z^{-M} + a_2 z^{-2M} + \dots + a_L z^{-LM}$.

28. (PREVIOUSLY PRESENTED) The system of Claim 21 where the system is implemented by computer logic according to computer-executed instructions stored in a computer-readable medium.

29. (PREVIOUSLY PRESENTED) The system of Claim 21 where the system is implemented by computer logic according to computer-executed instructions embodied in a computer-readable electromagnetic signal.

30. (PREVIOUSLY PRESENTED) A method for processing an audio signal, comprising:

warping between a first simulation model and a second simulation model, thereby producing a generated simulation model.

31. (PREVIOUSLY PRESENTED) The method of Claim 30, where the first simulation model, the second simulation model and the generated simulation model all comprise at least one of an amplifier simulation model, a cabinet simulation

model, a reverb simulation model, a time-variant effect simulation model, and a delays simulation model.

32. (PREVIOUSLY PRESENTED) The method of Claim 31, where the time-variant effect simulation model includes a modulation effects simulation model.

33. (PREVIOUSLY PRESENTED) The method of Claim 32, where the modulation effects simulation model includes an effect selected from a group comprising a chorus modulation effect, a flanger modulation effect, a phaser modulation effect, a pitch-shifter modulation effect, a rotary simulator modulation effect, and an intelligent harmony modulation effect.

34. (PREVIOUSLY PRESENTED) The method of Claim 30 where the method is implemented by computer logic according to computer-executed instructions stored in a computer-readable medium.

35. (PREVIOUSLY PRESENTED) The method of Claim 30 where the method is implemented by computer logic according to computer-executed instructions embodied in a computer-readable electromagnetic signal.

36. (PREVIOUSLY PRESENTED) A method for processing an audio signal, comprising:

providing a cabinet simulation model that is a function of a sampling rate for processing the audio signal; and

simulating an effect of a change in the sample rate.

37. (PREVIOUSLY PRESENTED) The method of Claim 36, where simulating the effect of the change in the sample rate in the cabinet simulation model includes making the cabinet simulation model a function of a virtual sampling rate.

38. (PREVIOUSLY PRESENTED) The method of Claim 37, where the virtual sampling rate is a function of the sampling rate.

39. (PREVIOUSLY PRESENTED) The method of Claim 36, where simulating the effect of the change in the sample rate in the cabinet simulation model includes making the cabinet simulation model a function of a user-controllable variable.

40. (PREVIOUSLY PRESENTED) The method of Claim 39, where the user-controllable variable is a function of the sampling rate.

41. (PREVIOUSLY PRESENTED) The method of Claim 39, where making the cabinet simulation model the function of the user-controllable variable includes defining the cabinet simulation model by a finite impulse response filter that is a function of the user-controllable variable.

42. (PREVIOUSLY PRESENTED) The method of Claim 41, where the finite impulse response filter ($H(z)$) is further a function of a number of filter taps (L), a plurality of coefficients (a_0, a_1, \dots, a_L), an inverse of the user-controllable variable (M), and an equation $H(z) = a_0 + a_1 z^{-M} + a_2 z^{-2M} + \dots + a_L z^{-LM}$.

43. (PREVIOUSLY PRESENTED) The method of Claim 36 where the method is implemented by computer logic according to computer-executed instructions stored in a computer-readable medium.

44. (PREVIOUSLY PRESENTED) The method of Claim 36 where the method is implemented by computer logic according to computer-executed instructions embodied in a computer-readable electromagnetic signal.